

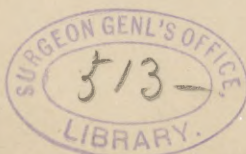
PHYSIOTHERAPY FIRST.

NATURE'S MEDICAMENTS BEFORE DRUG REMEDIES: PARTICULARLY RELATING TO HYDROTHERAPY.*

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All through the records of the history of medicine, from early Assyrian and Egyptian times down as we find to modern uncivilized tribes, we have clear evidence that in the first or early steps in the science of medicine, the practice of the art consisted for the most part in the employment of magical incantations, the laying on of hands, &c., and was apparently somewhat of the nature of modern hypnotism, acting through the mind, as if the chief reliance in the healing of disease was upon the natural living forces within the body. We are here reminded of the old saying that "God made man upright, but he hath sought out many inventions." Although Æsculapius in his practice, we are told, enjoined first of all a hygienic regimen, attention to the diet, strict temperance and absolute cleanliness by frequent ablutions, and although the temples that were afterwards erected in his honour were built in the healthiest localities, and the patients in them treated upon like hygienic principles, including rest and pleasing impressions, yet, so far as we know, it was Hippocrates who, practising in a similar way, first drew special attention to the inherent natural curative force within the body, applying to it the term *phusis* (*φύσις*) nature, the "*vis medicatrix naturæ*" of later Roman writers, while he also recognized subordinate forces, which he termed *dunamies* (*δυνάμεις*), relating more particularly to the various organs of the body. Moreover, in practice this father of medicine allowed these forces to pursue unmolested and uninterrupted their benign course; and he was in practice it appears remarkably successful. Coming down through the obscurity of the dark ages to two or three centuries ago, we find the discerning Van Helmont advancing the theory of a more specific healing force or power within the body, different from that belonging to inanimate matter—a sentient principle seemingly distinct from the cor-

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poreal frame, and which he personified as the "Archæus," or "Grand Regulator," whose throne was the stomach; Wepfer designating a like power as the "President of the nervous system;" and the bold Stahl attributing such an influence "Directly and entirely to the rational soul, diffused over the whole body." And while we still continue to pour in drug remedies as our sheet anchor in the treatment of disease, and the schools especially waive before us, perhaps not now so much as they did a few years ago, the endless and ever increasing drug formulæ of the pharmacopœia as the alpha and omega of resource in therapeutics, leaving us to find out for ourselves in practice, through years of most bitter, most destructive experience, the unreliability and danger of most drug remedies, a Metchnikoff now rises up and displays before our wondering eyes, as it were, the *vis medicatrix naturæ* actually personified, certain living cells in actual combat with disease germs; while other investigators teach us that there is generated in the body and found in the blood serum, a germicide more powerful than corrosive sublimate.

It is not my intention to make a tirade against drug remedies. Some of them are of undoubted value as subordinate remedies; although as Prof. Erb, of Heidelberg, says, of "chemical or internal remedies":—"Here we enter upon a very obscure field, which needs thorough cultivation. We know almost nothing of it; the little which therapeutic experience has taught us is neither securely established nor in any way scientifically or intelligibly founded." But I would like to deliver a vigorous tirade against the practice of the text-book makers and of the schools giving these remedies first place, usually, instead of the last, in the *materia medica*.

Many years ago I suggested, at more than one meeting of the Canadian Medical Association, that the profession in Canada take the initiative and appoint a committee with the view of inducing the profession elsewhere to join and cut out about nine-tenths of the pharmacopœia—and to separate the few grains of gold in it from the enormous amount of what is practically dross.

I will just mention here a few points relative to some of the dangers which may arise from drug remedies. On the 13th of the present month the *British Medical Journal* gives the report of "An inquiry regarding the importance of ill-effects following the use of antipyrin, antifebrin and phenacetin, by the Therapeutic Committee of the British Medical Association." I can only give two or three lines of the ten to eleven close columns of the report, as follows:—"The list of ill-effects noted with antifebrin is not only a very formidable one in itself, but loses none of this character when we consider the frequency of their occurrence." True it is that, as regards the freedom from ill-effects of the three drugs, antifebrin is third and last; phenacetin being first.

We must admit, furthermore, that the ill-effects from the administration of almost any drug may be considerable, even serious, and not be manifested even on close observation for a long period of time; just as we know is the case with certain kinds of food consumed. And when we think for a moment of the complex, intricate nature of the physiological and vital processes going on within the human organism, or of the susceptible nature of the digestive ferments, for example, we can readily understand, theoretically, that the introduction into the body in any way of but a mere trace of some chemical product, even one regarded as mild in its action, may interfere with or disturb, little or much, the process of nutrition, as well as other functions. The same may be said in respect to disturbing in like manner the natural healing processes—to interfering with the formation of nature's germicide, for example, or with the vigorous action of the army of phagocytes. For do as we will or may, nature ever reserves for herself the maximum of power in the direction of the processes of healing. In the words of a paper by Dr. Von Dunhoff, in the *New York Medical Journal*, of a few months ago:—"I submit that however efficient as germicides certain chemical agencies may prove to be in the laboratory, the same impracticability attends them in their adaptation to clinical issues, and renders the effect of their use here either nil or mischievous, as is the case with respect to the

effects of many of the so-called chemical preparations, presumably prepared with the nicest precision as supplemental ingesta, intended for the correction of certain qualitatively defective conditions of the blood and tissues ; and unless the inherent residual *vis resistentiæ naturalis* vouchsafes recovery, no man has yet attained the means of compelling such an issue artificially."

Experiments have shown that mice under the influence of chloral contract infections more readily than mice not under the influence ; the chloral probably depressing or embarrassing the action of the phagocytes.

The millionth part of a drop of blood from a rabbit affected with anthrax may communicate this malignant disease to a healthy rabbit. Possibly a much smaller quantity than the millionth part of a drop, say the four millionth part, would not communicate the disease to the animal when it is in a natural vigorous physical condition. But who can measure the infinitesimal quantity of chloral for example or other drug, which having been first given to the healthy animal, might so depress the phagocytes in its blood as to enable the bacilli of the disease, in that four millionth part of a drop of the infected blood, to come off the conquerors, establish their colonies and the disease, and destroy the life of the rabbit ? Or who could weigh the mere trace of some of the depressing or soothing drug remedies commonly given in infectious pneumonia, or in the earlier or sthenic stage of some of the infectious fevers, which might possibly so interfere with the formation or action of the natural germicides in the body of the patient as to lessen the chances of recovery, or possibly to favour auto-infection ?

Nor must we, moreover, meddle too far with benign nature even with our more natural remedies. No physician dare interfere with compensating hypertrophy of the heart in valvular disease. So in certain cases of epilepsy. In the words of Dr. Lyman, Professor of the Principles and Practice of Medicine, Rush Medical College, Chicago, in a recent address delivered before the Michigan State Medical Society, on the " Limitations of Therapeutics" :—" Though the paroxysms of the disease may

have been suppressed and the patient apparently cured, or if not absolutely cured, greatly relieved for a long period of time, the patient will sometimes tell you that after all he would prefer not to continue treatment any longer. Not because dissatisfied with your methods or measures, but because he felt so much better when the disease was allowed to run its natural course, and because an explosion or convulsion at certain stated intervals seemed to give absolute relief, showing that the wisest and best therapeutical methods [or what appears to us to be wisest and best] may nevertheless absolutely fail in giving to the patient that degree of comfort and satisfaction which we desire and which nature knew how to bestow." So that it is sometimes better to bear the ills we have than to fly to others we know not of. True, if the cause or causes of the diseased state which gives rise to these explosive convulsions as a means of relief were first removed instead of the mere symptoms being treated, the result would be quite different.

Permit me then just to mention here in this connection, as a reminder, and we all need frequent reminders, the fact that, in the treatment of disease, there are two most important points to bear in mind : first, to ascertain, if possible, by the most careful and thorough examination, the cause or causes of the diseased condition or symptoms we are called upon to treat ; and second, to remove the cause or causes or prevent the recurrence of the same. Then, in very many cases, if we provide the ordinary essentials of health and life—pure air, water and sunlight, securing the utilization through the respiratory organs of abundance of oxygen, with suitable food, clothing and rest, or it may be exercise, probably partial, passive exercise, as in passive movements by another person or in massage, with the means of absolute cleanliness—abundance of water, dirt being so common a cause of disease, then usually benign nature "will do the rest." Hence a very much larger proportion of the time given to the study of medicine should be devoted to the study of pathological conditions, and especially to the causes of these conditions.

The application of these natural remedies, the essentials of

life, as above named, may be termed natural therapeutics. Or, if I may be permitted to coin from the Greek a new term, for I have never observed it in print, a term more in accordance with medical nomenclature than the words hygienic treatment commonly used, I would suggest the term, Physiotherapy. Let us notice more in detail, yet briefly, a few of these therapeutic remedies.

Pure air and sunlight are recognized by everybody as being most valuable restoratives; yet they are not nearly so often prescribed and administered therapeutically to patients as they might and should be, and before drugs. Were they costly remedies and not free to all they would perhaps be more commonly prescribed. Besides, many people do not know how to breathe in, and get the full benefit of, pure fresh air, with its life-giving oxygen. They make only partial use of their respiratory organs. I have tried the experiment of inducing patients who suffered from weak, inactive lungs and consequent general debility, to draw in more fresh, cool air at each inspiration—to “eat the air,” as the Hindoos have it. From this prescription alone great improvement has resulted. Deep forced inspirations will increase the bodily temperature.

The diet being a common cause of bodily derangement and disease, we have in modification of it and in feeding or fasting, a potent remedy. While many patients need feeding, with a more nutritious or suitable, if not more abundant diet, many on the other hand require to let the digestive, nutrient and excretory organs rest by remaining in bed for a time and eating almost nothing—fasting. Regulation of the diet in these various ways has alone in my hands proved to be a very efficacious remedy.

A complete rest for the whole organism, in this rushing age, with feeding or fasting as indicated, probably a few days of fasting and many more of feeding, is not infrequently a prescription strongly indicated and much needed, and alone is often sufficient to restore health. And the “rest cure,” as it is called, is becoming as we know a somewhat common practice. It is to be hoped fashion will not abuse it.

Mental influence : Before noticing passive exercises and hydrotherapy I may just refer to this as a remedy. To it may be attributed the miraculous cures we read about occasionally, "faith cures" and the like. What physician has not witnessed the effects of mental influence exercised through the power of hope, in many cases of disease ? or of the power of a strong will in overcoming disease ? I will allude to but one practical and direct example of the power of the mind over the body : that of defecation in constipation from the sluggish state of the lower bowel. Persistent concentration of the will upon the parts, accompanied, not by straining but simply by desire of action, will alone overcome many cases of habitual constipation. Massage will usually aid in producing, and hasten, the desired action.

Mention may be made, too, as associated with mental influence, of hypnotism with suggestion ; which although attracting a good deal of attention in France, is not yet well understood nor generally recognized as a remedy in practice.

Electricity is apparently destined to become an important remedy and may also be regarded as a natural one, in the treatment of disease, especially as produced by friction ~~or~~ *induction*, usually termed static electricity. With its small volume and high degree of force in this form it has already produced highly satisfactory results. The nature of its action not being yet well understood, its use is necessarily empirical, and is a very bonanza for quacks. True it is that many of our most valuable remedies have been brought into use in this way. It has not fallen to my lot to have had much experience with electricity. Indeed, with the other remedies at command, I have never yet experienced the need of it ; the electrical effects of massage usually sufficing.

Kinesitherapy—Passive local movements or exercises, as in massage and the manual or mechanical movements commonly termed Swedish, constitute a most potent remedy in a large number of diseases. It is a remedy the action of which we can readily understand and regulate and control. While the practice of massage—kneading, rubbing, percussing, or tapping,

is rapidly coming into general use, the so-called Swedish movements, which are of equal if not of greater value, seem not to be so generally practiced.

The effects of these passive exercises of the muscular tissue, by either massage or the more natural movements, while readily comprehended, are sometimes almost phenomenal. Diseased conditions are removed by substituting natural healthy action. They aid the natural forces in eliminating morbid or poisonous accumulations from the system. In all forms of dyspepsia, in dilatation of the stomach, when the muscular tissue is weak and inactive, in helpless cases of rheumatoid arthritis, even of several years standing, in curvatures of the spine and other deformities, and in paralysis of motion, no other treatment is so applicable and successful; when combined, I need hardly add, with other physiotherapeutic remedies, especially with abundance of atmospheric oxygen and proper food, and in rheumatism with the warm bath.

In relation to kinesitherapy I will only add that, in all cases of muscular asymmetry, with the accompanying want of uniformity in action and vigour, a condition which is the forerunner or cause of many diseased conditions, especially as found in gynæcological practice, and in which ordinary exercise is not admissible, no other treatment meets the requirements so completely. As Dr. Kellogg, of the Battle Creek, Mich., Sanitarium, says, in "Modern Medicine and Bacteriological World," in his "experience with several thousand cases, lack of muscular development is the cause of a great share of uterine and ovarian displacements," and a "substantial cure cannot be effected by any other means." In the majority of cases the patients cannot take general "exercise" themselves, and these partial exercises supply the want.

Hydrotherapy: We now come to the last therapeutic agent to which I shall draw attention, and which indeed I regard on the whole as the most important and valuable of all—the common element water, in its various forms of application as in hydrotherapy.

When we consider the broad fact that many diseases, func-

tional and organic, if indeed there be any distinction, are caused more or less directly by dirt, dirt outside the body or within it, we can at once comprehend the value of water as a therapeutic remedy, and in the simplest form of application—water in which to wash and be clean. I need hardly refer to its value, as confirmed by the highest authorities, in washing out, with copious water or salt and water injections, the intestines in cases of cholera. I believe it would have an equally good effect in typhoid fever. Nor need I refer to its value, when copiously swallowed, in washing out the entire internal structure of the human body, to the minutest recesses among the tissues, as when the organism has become loaded with the debris—the dirt, practically—of the ordinary functions of life, which has accumulated in the fluids and tissues from want of proper hygienic care or habits. We know that it is now the opinion of many physicians that it is to the copious water drinking in most cases, much more than to any mineral ingredients in the water, that many of the popular “springs” owe their popularity. Persons suffering from excess of waste matters, and the poisonous substances arising from the decomposition of these in the tissues and fluids of the body—from impure blood, receive at the springs a complete wash-out—flushing—a succession of internal baths; they are simply washed and made clean.

But water, it need hardly be said, has as a medicament a much broader application than is indicated in any of these pathological conditions. Remarkable physiological and therapeutical effects can be produced by the application of water in various ways, and on the whole more safely and naturally than with drugs.

The only work on this subject in the English language, untainted with quackery, so far as I know, if we except the valuable treatise of Winternitz in Ziemssen's *Hand-book of Therapeutics*, now practically out of print, is that on the “Uses of Water in Modern Medicine,” by Simon Baruch, a physician holding many high positions in New York, published a year or so ago by Geo. S. Davis, of Detroit. If any of you are not in possession of this practical little work, I take the liberty of saying that you should get it at the earliest opportunity. It consists of two volumes of

the "Physician's Leisure Library" series and is very inexpensive.

Dr. Baruch makes this happy distinction between hydrotherapy and hydropathy: "The former accepting water as one important remedial agent, the latter regarding it as a universal remedy." To my mind it is just about as Dr. Baruch further says: "While I emphasize my belief in all those drugs whose effects have been positively demonstrated in the laboratory and at the bedside, I espouse water as perhaps the most potent of remedial measures; . . . upon the historical, physiological and clinical grounds succinctly set forth in the following pages;" *i e.*, of his book. Again, he continues: "The history of water as a therapeutic agent is not only a most interesting chapter, but it affords the clearest demonstration of the instability of therapeutic propositions, and the manner in which prevailing ideas influence them. Although the literature of the subject is the most extensive published with regard to any remedy, recent works on therapeutics treat it with a decidedly stepmotherly regard; they dismiss it in a few beggarly lines, preferring to devote their columns to essays upon the action of remedies . . . whose actual clinical value is, in most instances at least, problematical. The history of water teaches clearly that no other remedy has so creditably passed through vicissitudes of depression, and that, despite professional and lay prejudice, it stands to-day unscathed and rendered secure against assault by the panoply obtained from physiological and bedside results."

A few words here on the history of hydrotherapy will be both interesting and profitable. Hippocrates laid down rules for the treatment of disease by water, which even at this day are practiced by both physicians and quacks. Two and a half centuries later, Asclepiades, though, it appears, not possessed of much real medical knowledge, by his great natural ability and discretion, attained eminence in Rome as a practitioner, depended almost entirely for his success on a judicious diet, massage and baths; by means of which he performed "miraculous cures." So warm an advocate was he of the water treatment that he was dubbed "Psychrolutus." Through Asclepiades hydrotherapy was popularized in Rome. He formed the school

whence sprang Themison, Celsus and other eminent physicians. A pupil of his, Antonius Musa, restored the Emperor Augustus to health by the vigorous use of cold water : and he had Horace too for a patient. So grateful was the Emperor that he bestowed upon him and the whole medical profession the privilege of citizenship, and had a statue erected to Musa next to that of Æsculapius. Celsus, the "Latinorum Hippocrates," prescribed water freely ; as did also Aurelianus, who originated the wet sponge abdominal compress for hypochondriacs. Galen was an advocate of cold water baths, and was the first it appears to advise cold applications to the head while the body was immersed in warm water. We know but little relating to the history or practice of medicine in the many dark centuries which followed the time of Galen. Oribasius of the fourth century, Ætius of the fifth, Trallianus of the sixth, and Paulus Ægineta of the seventh, the most noted of their time, were all zealous Galenists it appears and followers of his practice. Ægineta was an enthusiastic advocate of the use of water, and was the first to advise the cold douche in sunstroke. All the more eminent physicians of the next few centuries, during the more dense barbarism of Europe—Serapion of Damascus, Rhazes of Irak, Avicenna of Bochara, and Avenzoar of Seville who, it is said, lived to the age of one hundred and thirty-five years, appear also to have been disciples of Galen, following in his line of practice. Chemistry made considerable progress during that period, and there were many additions to pharmacy, and possibly but little water was used in any way until the dawn, in the seventeenth century. The Hippocrates of England, Sydenham, holding the more enlightened view that diseased action consists essentially in a natural effort of the system to remove morbid or noxious products, his practice was, like that of Hippocrates, to assist nature. I cannot learn that he relied much upon hydrotherapy ; but a few years after his death, about the close of the seventeenth century, Sir John Floyer, physician, of Lichfield, Eng., published a "History of Cool Bathing, Ancient and Modern," a book which created an epoch in hydrotherapy, passed through six editions within a few years, and many years later was translated into German. Blair and Cheyne, English

physicians of the highest standing, recognized hydrotherapy in their practice. The illustrious German physician, pathologist and clinical teacher, Hoffman, was the first to distinctly recognize the influence of water upon the "tone" of the bodily tissues. After his time, during the eighteenth century, the use of water in medical practice became much more popular in Germany. The surgeon of Frederick the Great, Theden, was the first to use it in fevers, small-pox and rheumatism. He improved the shower bath and warmly advocated its use. About this time Hahn and his son and Oertel helped much to establish the principles of modern hydrotherapy in Germany, in both acute and chronic diseases. The work of the illustrious Currie, published in 1797, first placed hydrotherapy on a scientific basis, it appears. It advocated the use of water in gout and paralysis as well as in fevers, and was translated into German and other languages. Although the practice of hydrotherapy was more popular in Germany than in England at this time, it is contended that it was by reason of translations of English writers, as Fayer and Currie. The practice of the latter was adopted in the Vienna hospital. To mention the wise, philosophic Hufeland as an enthusiastic and yet judicious advocate of hydrotherapy, as Baruch says, is to "give the imprint of true medical wisdom to it, and to indicate its wide adoption among the profession. He offered a prize for the best treatise on the action of cold water in fevers, determined by scientific thermometrical study." A Vienna professor was the successful competitor, whose treatise was published in 1823.

Notwithstanding all this, and more, hydrotherapy did not become generally popular until the time of the German farmer, Vincenz Priessnitz, who at his home in Grafenberg, Silesia, first received patients, enlarging his house as occasion required. In 1840 he had treated over 1,500 persons, from various parts of the world, and twelve years later had amassed an immense fortune. "His success was brilliant because he was a careful observer, a good judge of human nature, and his mechanical skill enabled him to invent various technical modifications of the water treatment, many of which have been adopted by the profession and are still in use. A copious literature sprang up

in all parts of the world, and many institutions were modelled after his establishment; monuments and fountains were erected to his memory. Physicians from all countries, who had been attracted to the mountain home, became converts to and missionaries of his practice." A few years later, Scoutetten, a French physician, after studying hydrotherapy in Germany, reported that, "The numerous permanent cures it has wrought recommend it, and it lies in the interest of humanity and medical science that its practice in Paris take place under the eyes of able physicians." Magendie aided in the propagation of hydrotherapy by physiological demonstrations. Fleury introduced douches, and explained his clinical success on physiological principles. Fever treatment as now practiced was initiated by Brand, who in 1861 published his startling results from immersions and compresses with water at 54° to 68°F. The practice was soon introduced into England by Wilson Fox.

Respecting the practice of hydrotherapy, as Niemeyer, in his work on practice, says:—"A series of cases are on record in which complete and perfect cures have been obtained by it, after all other methods of treatment had been applied in vain." Dujardin-Beaumetz (lectures at l'Hopital Cochin, 1887) said: "The benefits we obtain from cold water in the cure of disease arise from its physiological effect upon the circulation, the nervous system, the nutrition, and from its revulsive and heat lowering influence." Prof. Peter, of Paris, in his preface to the great clinical work on hydrotherapy of Duval, writes:—"Hydrotherapy suffices in most cases of disease; added to other treatment, it is a most powerful auxiliary." Prof. Erb, in his classical contribution to Ziemssen's *Cyclopædia*, writes:—"To the most important and most active agents in the therapeutics of our field (nervous diseases) belong cool and cold baths, viz., the application of cold water in the most varied forms; that which is usually termed 'cold water treatment.' Having been in recent times practiced more rationally and studied more exactly, it has attained remarkable prominence. Its results in all possible forms of chronic nervous diseases are extraordinarily favourable. If we add to this the heightened skin and muscular action induced by various methods of bathing,

the influence of diet, etc., it becomes evident that we possess few remedies which produce an equally powerful effect upon the nervous system." Seminola, Professor of Therapeutics in the Naples University (lectures, 1890), says:—"Hydrotherapy stimulates cutaneous activity, and with it all functions of tissue change and organic purification, so that often real marvels of restoration in severe and desperate cases are accomplished. Unfortunately, those remarkable results are more rare to-day than they were in the time of Priessnitz, of which I was myself a witness." In all cases of retardation of tissue-metamorphosis, he says, "hydrotherapy presents a truly rational treatment, and therefore unfailing effects, unless the local processes have reached incurable limits."

I could give many pages of such quotations from our highest authorities as to the value of water in the treatment of disease, but the above will suffice.

About a year ago, Rovighi, at a medical congress in Rome, read a paper respecting the effects upon the blood cells of the application of water, as shown by experiments he had made on men and rabbits. In March last, Prof. W. Winternitz, of Vienna, published (in *Cent. fur Klin. Med.*) a contribution on the same subject. Since that time, investigations by Dr. W. S. Thayer, of the Johns Hopkins hospital, and more recently still, studies at the Physiological Laboratory of the Battle Creek Sanitarium, have verified the results of the other investigations. In *Modern Medicine*, for December, is a translation by Dr. J. H. Kellogg of another article which had just been published by Winternitz (in *Blat. fur Klin. Hydrother.*) on the same subject. All these show clearly that the application of water, apparently hot or cold, to the surface of the body produces an increase, sometimes large, in the red corpuscles, leucocytes and hæmoglobin in the circulating blood. Winternitz reports:—"The maximum increase in red-blood corpuscles observed in fifty-six persons examined, was 1,860,000 per cmm. The maximum increase of leucocytes was to the extent of three times the ordinary number. The maximum amount of hæmoglobin observed was fourteen per cent." Blood corpuscles stagnant in various organs and tissues are by such means,

as in the case of muscular exercise, forced into the general circulation.

At the late Pan-American Medical Congress, Washington, Dr. Baruch, opening the discussion relating to the value of cold water in asthenia, mentioned the astonishing effects of the cold douche. It rouses the circulation and "sets the wheels of life again in motion" in the very climax of this condition—with "thready pulse, shallow breathing, dull eye, picking at bed-clothes, subsultus, involuntary defecation,"—in any febrile condition, scarlet fever, &c. (*Therap. Gaz.*, Jan., 1894) and produces effects which no known drug remedy, not even alcohol, will produce.

I will but mention, what some of you may not have read of (in *Jour. of Am. Med. Assoc.* and *N. Y. Med. Jour.*) the Schott method of treating chronic heart disease by warm baths aided by muscular exercises. During the baths there is a reduced frequency of the pulse, with increased volume and strength and less irregularity. This effect is lasting, and a gradual amelioration of symptoms follows persistent treatment. It is said this treatment is applicable to a greater variety of cases than is Oertel's method. Schott medicates the baths by salines or carbonic acid; but their value is probably almost solely due to the regulation of the circulation by the temperature of the baths. This I believe from personal experience.

Permit me, in conclusion, to say a very few words in respect to my own limited experience in the practice of hydrotherapy. In the latter part of my teens, having been a pretty hard working student, I was troubled a good deal with indigestion and a consequent want of good general health and vigour. In opposition to the wishes of my father, who was bitterly opposed to any semblance of quackery, and after having taken a good deal of medicine from several of the best physicians of the time in the country around, under pretence of visiting friends during holidays, I placed myself under the care of a Mr. Brown, who had during the time of Priessnitz's popularity, which it appears extended to the uttermost parts of the earth, started a hydro-pathic establishment, or "Water Cure," in Newmarket, Ont., near my home. Brown had no medical knowledge, and his

failures probably outweighed his successes ; but the " cold wet pack" or " sheet bath," and other forms of water application, which he prescribed benefited me, and was the starting point of my faith in the value of water as a therapeutic agent. During after years of laborious country practice, and many of them, although the want of available correct literature on the subject was a great drawback, I frequently availed myself of water as a remedy: especially in copious draughts of it as a most certain and efficient diuretic and diaphoretic, directly unloading the cutaneous tissues and urinary organs, and through them in a large measure the entire body, of accumulated obstructing matters ; as hot and cold compresses in local pathological disturbances ; as a tonic in the form of a cold sponge or shower bath ; as a most soothing regulator of the entire organism in the form of a warm bath ; and in other ways. Of one thing I feel certain, I never in my practice knew the free use of water to do any harm. This, neither you, gentlemen, I think, nor I, can say of drug remedies. When weary and exhausted from riding all day, and perhaps all night, on the saddle or a two-wheeled chaise, nothing gentlemen, be assured, will rest and recuperate you, soothe the irritated nerves and equalize the disturbed circulation, like a warm bath, at a temperature of 93° or 94° to 97°F. Having spent many an hour reading in such a bath, I speak from personal experience. And now, largely as a consequence, when not very far from being 60 years " young," I feel better, more vigorous, youthful and clear headed than when at half the age. The warm bath you know has a high reputation too for warding off the effects of age. There is no other remedy so refreshing. Thus Minerva imparted renewed vigour to the weary limbs of Hercules. And three thousand years ago, Homer wrote, Hector's wife prepared warm baths that, " Returning from the fight," at Troy, " Hector might be refreshed."

..... " Not yet the fatal news had spread
 " To fair Andromache, of Hector dead ;

" Her fair-haired hand-maids heat the brazen urn,
 " The bath preparing for her lord's return.